REMARKS AND ARGUMENTS

The present application includes claims 1-8, 11-20, 23-36 and 53-54. Claims 1-8, 11-20, 23-36 and 53-54 were rejected in the June 13, 2006 Office Action.

Claims 1-8, 11-14, 16-20 and 23-24 were rejected under 35 U.S.C. § 112.

Claims 1-2, 5 and 7-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild et al. (U.S. Patent No. 6,678,703 (cited herein as "Rothschild") in view of Kumagai et al. (U.S. Patent No. 6,081,809 (cited herein as "Kumagai") and further in view of Sameshima et al. (U.S. Patent No. 6,038,564 (cited herein as "Sameshima").)

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, Alisuag. (U.S. Patent App. No. 2002/0083192 (cited herein in "Alisuag")) and Sameshima.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Dethloff. (U.S. Patent No. 5,902,981 (cited herein as "Dethloff").)

Claims 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Parvulescu et al. (U.S. Patent No. 6,678,764 (cited herein as "Parvulescu").)

Claims 15-18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler (U.S. Patent No. 6,338,433 (cited herein as "Drexler")).

Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Alisuag.

Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler and Dethloff.

Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Parvulescu.

Claims 25-29, 31-34 and 53-54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima and Parvulescu.

Claim 30 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima, Parvulescu, and Alisuag.

Claims 35-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima, Parvulescu, and Dethloff.

Rejections Under 35 U.S.C. § 112

The Applicant first turns to the rejection of claims 1-8, 11-14, 16-20 and 23-24 rejected under 35 U.S.C. § 112. The Applicant has amended claims 1 and 15 to correct the antecedent basis for "the transfer." Claims 2-8, 11-14, 16-20 and 23-24 depend from claims 1 and 15. Therefore, the Applicant respectfully submits that the rejection under § 112 is overcome.

Rejections Under 35 U.S.C. § 103(a)

1. Rothschild In View Of Kumagai And Sameshima

The Applicant next turns to the rejection of claims 1-2, 5 and 7-8 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima. Rothschild discloses a medical image management system and method. The system of Rothschild includes a medical imaging system, a local image workstation and a central data management system. (Kumagai, col. 8, lines 45-48.) The medical imaging system produces an electronic record that includes an electronic image associated with a region of a patient's body. (*Id.*, col. 8, lines 48-51.) The local image workstation communicates with the medical imaging system so that the electronic record is transmitted from a medical imaging device to the local image workstation. (*Id.*, col. 8, lines 51-58.) The central data management system communicates with the local image workstation so that the electronic record is transmitted from the local image workstation to the central data management system. (*Id.*, col. 8, lines 55-59.) The central data management system also transmits the electronic record to remote viewing systems. (*Id.*, col. 8, lines 59-63.)

However, Rothschild does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Instead, Rothschild merely describes a local image workstation that "pushes" an electronic record to the central data management system once data is obtained by the local image workstation. (*Id.*, col. 18, lines 53-56.) The local image workstation is not triggered by any

other component of the system to transmit the image data. Instead, the local image workstation merely transmits the data once it is obtained.

The local image workstation of Rothschild does not wait for any trigger, request, command, or directive from a status monitor. In fact, Rothschild clearly distinguishes the "pushing" of data by the local image workstation from triggering a transmission of medical data by contrasting the "pushing" of data with the "pulling" of data. (*Id.*, col. 18, lines 53-56; col. 22, lines 25-43.) For example, Rothschild defines the "pushing" of data as the transmission of data as soon as the data is obtained, without waiting for any request for the data or directive from a status monitor to transmit the data. (*Id.*, col. 22, lines 25-28.) By way of contrast, Rothschild defines the "pulling" of data as the transmission of data after a request is made for the data by a user. (*See id.*, col. 22, lines 28-30.) Rothschild clearly states that the central data management system "pushes" the data and does not "pull" the data. Therefore, a data source in Rothschild does not wait for any trigger to transmit medical data for storage. Thus, Rothschild does not teach or suggest elements of at least claim 1.

Kumagai describes an interpolative method and system for producing medical charts and monitoring and recording patient conditions. However, Kumagai does not remedy the shortcomings of Rothschild. Kumagai does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as

recited in claim 1. Kumagai does not teach or suggest any status monitor. Therefore, Kumagai also fails to teach or suggest elements of at least claim 1.

Sameshima describes a method and apparatus for integrating distributed information. However, Sameshima does not remedy the shortcomings of Kumagai and Rothschild. Like Kumagai and Rothschild, Sameshima also does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Like Kumagai, Sameshima does not teach or suggest any status monitor at all. Rather, Sameshima only a plurality of processing devices that mutually communicate data to one another via a transmission medium. (Sameshima, col. 4, lines 37-40.) A software structure present in each processing device that includes the data integration management table 233 and status control table 234 cited by the Examiner. (*Id.*, col. 4, line 65 - col. 5, line 51.) However, neither of these software structures monitor operations occurring **at** a data source. Instead, Sameshima describes tables 233 and 234 as only monitoring operations occurring internally at the processing device that includes tables 233 and 234. (*Id.*, col. 5, lines 16-51.) That is, the software structure in a processing device only detects events occurring within the processing device, and not at or within any device external to the processing device, such as a data source:

> A data integration management table 233 defines reference sources of respective data to be integrated and the names of the data, and also defines an output option, etc. when the integrated data are delivered to the application programs 211, 121. Filtering processing 222 is a program for detecting events such as an event based on a periodic timer in the self processing device, an event based on data renewal

> and an event based on a message **received** from another processing device, obtaining the data in the self processing device through the data access processing 221 or obtaining the integrated data by referring to the event linking data table 232, the data access management table 231 and the data integration management table 233, and transmitting data obtained through the communication management 223 to another processing device which requests the data or the data integration processing 224 of the self processing device. . . . A status control table 234 sets conditions to start/end the collection of the data set in the event linking data table 232 and the integration of the data set in the data integration management table 233. Status control processing 225 is a program for **detecting an event such as message reception, data renewal or the like**, referring to the status control table 234 to detect the timing of starting/ending the data collection or the data integration, and activating relational control information of the event linking data table 232 and the data integration management table 233.

(*Id.*, col. 5, lines 16-51 (emphasis added).) Note that Sameshima describes data renewal as an event that is triggered internally at a processing device--that is, that data renewal depends on the detection of an event occurring within the processing device and not at or within an external device, such as a data source. (*See id.*, col. 15, lines 27-42 ("In response to the renewal of the data table 1111 as a trigger event, the filtering processing 222 of the processing device S3 refers to the event linking data table 232 to transmit the data of the data table 1111 as a message 1121 to the other processing devices S1 and S4.").) Note that the data table 1111, upon which the data renewal trigger event is based, is located within filtering processing 222 of processing device S3. (*See id.*, Fig. 14.)

Therefore, Sameshima also does not teach or suggest any status monitor that monitors operations occurring at a data source and triggers an archive request, as recited in claim 1. At most, Sameshima describes a device that monitors occurring within the same device. Accordingly, Sameshima cannot teach or suggest elements of at least claim 1.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai and Sameshima, the combination also fails to teach or suggest elements of claim 1. As described above, each of these references fails to teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Therefore, a combination of these references also fails to teach or suggest elements of claim 1.

The present rejection encompasses claims 1-2, 5 and 7-8. The Applicant respectfully submits that none of the cited references, taken alone or in combination, teaches or suggests elements of claim 1. Claims 2, 5 and 7-8 depend from claim 1. Therefore, claims 1-2, 5 and 7-8 should be allowable.

2. Rothschild In View Of Kumagai And Sameshima, And Further In View Of Alisuag

The Applicant next turns to the rejection of claims 3-4 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Alisuag. Alisuag describes a computer oriented record administration system. The system in Alisuag provides for access to a portable memory device by two users. (Alisuag, ¶ 11.) Specifically, a portable memory element 22 can contain identification and medical information about a patient 24 being treated by a first user 40.1. (*Id.*, ¶ 12.) In order for the first user 40.1 and a second user to obtain access to the information in element 22, first user 40.1 obtains a

passkey from a server computer system 12. (*Id.*, ¶ 14.) The passkey is then provided to the second user 40.2 from the first user 40.1 over a separate communication channel. (*Id.*) The second user 40.2 provides the passkey to the server computer system 12 and is provided with access to the data on element 22. (*Id.*)

Alisuag also describes an authenticator 402 that provides for authentication of access by a client to CORBAMED servers. (*Id.*, ¶ 45.) CORBAMED servers are defined by Alisuag as servers within the CORBAMED standard. (*Id.*, ¶ 28.) The CORBAMED standard is the Object Management Group, Inc. supported interface for the electronic exchange of medical data. (*Id.*) Alisuag describes five functions performed by CORBAMED servers. (*Id.*, ¶¶ 28-42.) The functions of CORBAMED server described in Alisuag consist of (1) a framework for correlating a patient's medical data from a number of different databases (*id.*, ¶ 31), (2) a service that reconciles different data format requests issued by medical systems (*id.*, ¶ 35), (3) a service that provides a common interface for healthcare systems exchanging clinical observations (*id.*, ¶ 37), (4) a service that provides access to clinical images and related information where DICOM is not required (*id.*, ¶ 40), and (5) a mechanism for obtaining authorization decisions and administering access decision policies. (*Id.*, ¶ 42.) None of the functions of CORBAMED servers described in Alisuag involve the providing of medical data.

However, Alisuag does not remedy the shortcomings of Rothschild, Kumagai and Sameshima, as described above.

A. Claim 4: None Of The References Teaches Or Suggests An Access Authenticator That Authenticates Access To A Data Source

The Applicant agrees with the Examiner that none of Rothschild, Kumagai and Sameshima teaches an access authenticator that authenticates access to a data source. (June 13, 2006 Office Action, page 6.) Alisuag also does not teach or suggest an access authenticator that authenticates access to a data source, as recited in claim 4. Assuming for the sake of argument that ¶ 45 of Alisuag describes authenticating access to a remote data store (as the Examiner asserts in the Office Action mailed December 14, 2005 at page 5 and in the Final Office Action mailed June 13, 2006 at page 6) access is only authenticated for a data **store**, and not a data **source**.

That is, Alisuag merely describes authenticating access to CORBAMED servers. (*Id.*, ¶ 45.) As described above, none of the CORBAMED servers provide medical data comprising at least one of a medical image, a medical patient report, and a medical application. Therefore, none of the CORBAMED servers constitute a medical data source (as recited in claim 1). Consequently, Alisuag does not teach or suggest authenticating access to a medical data source, as recited in claim 4.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai, Sameshima and Alisuag, such a combination also fails to teach or suggest elements of claim 4. As described above, each of Rothschild, Kumagai, Sameshima and Alisuag fails to teach or suggest an access authenticator that authenticates access to a data source, as recited in claim 4. Therefore, a combination of these references also fails to teach or suggest all elements of claim 4.

In addition, Rothschild explicitly teaches away from authenticating any access to a remote data store or to a data source by repeatedly criticizing the authentication required by other systems and methods to deliver medical images:

> In general, most of the known systems and method for managing medical images in electronic record format use "pull" type image delivery protocol which requires the referring physician to log on to a web server and then download his or her patient's images. However, busy physicians do not have the time or the desire to access their patient's images in this manner. The "pull" model requires the physician to log in as well as extensive physician input and time to initiate the data transfer.

(Rothschild, col. 4, lines 42-50.)

> All other known medical image management systems and methods are believed to require the physician to log on to web sites and then download the images to his computer. Hence, with other ASP systems not associated with the present invention, if the physician wishes to see his patients' images again, he must repeat the extensive and lengthy login and download procedures. It is believed that such methods which rely upon the physician to actively login and download, will be unacceptable for the referring doctors who are extremely busy and are used to images being delivered to them on film.

(*Id.*, col. 24, line 60 - col. 25, line 3.)

Rothschild also clearly states that its invention delivers medical images to doctors and radiologists as soon as the images are available, without requiring any type of authentication before the images are delivered:

> The central data management system (30) actively "pushes" the electronic records (5) and associated images (6) to the remote image viewing systems (40) of the radiologists and referring doctors as soon as the images are available. **This contrasts with the "pull" model where** the images are stored on a server and **a user has to login** and initiate a download in order to view the images.

(*Id.*, col. 22, lines 25-31 (emphasis added).)

In other words, Rothschild describes a system and method where medical images are transferred from an image source (Rothschild's medical imaging system) to a central data management system, then to a remote image viewing system as quickly as possible, with no additional delays introduced by requiring that access to any of the image source, central data management system, and/or remote image viewing system be authenticated.

The only disclosure in Rothschild of any authentication occurs in one embodiment, namely an embodiment that includes a polling system within a remote viewing station. (*Id.*, col. 15, lines 54-65.) In this embodiment, the polling system automatically polls the central data management system for medical data that is queued for delivery to the remote viewing station. (*Id.*) The polling system determines the IP address of the remote viewing station and notifies the central database (assumed to be part of the central data management system) of its current IP address. (*Id.*, col. 15, lines 58-59.) An IP notifier of the polling system then notifies the central database of the IP address "after proper authentication." (*Id.*) In other words, the only authentication disclosed in Rothschild is the authentication of a remote viewing station's current IP address.

B. Claim 1: None Of The References Teaches Or Suggests The Recited Status Monitor

As described above, none of Rothschild, Kumagai and Sameshima teaches or suggests the status monitor recited in claim 1. Alisuag also does not teach or suggest at least any such status monitor. Specifically, Alisuag does not teach or suggest any status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the data source transmits the data to a centralized

remote data store when the request is triggered, as recited in claim 1. Alisuag merely describes the obtaining of a passkey by a first user and the communication of the passkey to a second user so that both users can access data stored on a portable memory device. (*Id.*, ¶¶ 11, 12, 14.) Alisuag does not teach or suggest, among other things, any status monitor such as that recited in claim 1.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai, Sameshima and Alisuag, the combination also fails to teach or suggest elements of claim 1. For example, as described above, none of Rothschild, Kumagai, Sameshima and Alisuag, teaches or suggests at least any status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the data source transmits the data to a centralized remote data store when the request is triggered, as recited in claim 1. Therefore, a combination of Rothschild, Kumagai, Sameshima and Alisuag also fails to teach or suggest at least these elements of claim 1.

The present rejection encompasses claims 3 and 4. The Applicant respectfully submits that none of Rothschild, Kumagai, Sameshima and Alisuag, taken alone or in combination, teaches or suggests elements of at least claims 1 and 4. Claims 3 and 4 depend from claim 1. Therefore, claims 3 and 4 should be allowable.

3. Rothschild In View Of Kumagai And Sameshima, And Further In View Of Dethloff

The Applicant next turns to the rejection of claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Dethloff. Dethloff describes a method and system for securing and restoring data of a portable chip-card if lost or stolen. Specifically, Dethloff describes a data medium 10 (such as a chip-card) and a terminal 20. (Dethloff, col. 3, lines 23-27.) Data representing the total amount of available memory is written into a memory section 16 of data medium 10. (*Id.*, col. 3, lines 53-61.) The terminal displays the data and changes the data according to corresponding operation of the terminal. (*Id.*, col. 1, lines 38-42.)

However, Delthoff does not remedy the shortcomings of Rothschild, Kumagai and Sameshima, as described above. Delthoff does not teach or suggest any status monitor at all, much less a status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the medical data is transferred to a centralized remote data store when the archive request is triggered, as recited in claim 1. Rather, Delthoff is limited to describing only a data medium (such as a chip card) that merely stores data and a terminal that merely stores and displays data. Delthoff does not describe any status monitor.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Kugamai, Sameshima and Delthoff, the combination also fails to teach or suggest elements of at least claim 1. As described above, none of these references teaches or suggests the status monitor recited in claim 1.

The present rejection encompasses claim 6. The Applicant respectfully submits that none of Rothschild, Kumagai, Sameshima and Delthoff, taken alone or in combination, teaches or suggests elements of at least claim 1. Claim 6 depends from claim 1. Therefore, claim 6 should be allowable.

4. Rothschild In View of Kumagai And Sameshima, And Further In View Of Parvulescu

The Applicant next turns to the rejection of claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Parvulescu. Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild, Kumagai and Sameshima, as described above. While Parvulescu generally describes a system for obtaining and archiving medical images, Parvulescu does not include any disclosure of a status monitor (1) monitoring operations occurring at a data source and (2) triggering an archive request after the medical data is obtained by the data source, as recited in claim 1. Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive. (Parvulescu, col. 4, lines 30-36.) There is no teaching or suggestion of any device or routine that either monitoring operations occurring at a data source or triggers the archiving of medical data when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of at least claim 1.

In addition, assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai, Sameshima and Parvulescu, the combination also fails to teach or suggest

elements of at least claim 1. As described above, each of these references fails to teach or suggest a status monitor (1) monitoring operations occurring at a data source and (2) triggering an archive request after the medical data is obtained by the data source, as recited in claim 1. Therefore, a combination of these references also fails to teach or suggest at least this element.

The present rejection encompasses claims 11-14. The Applicant respectfully submits that none of Rothschild, Kumagai, Sameshima and Parvulescu, taken alone or in combination, teaches or suggest elements of at least claim 1. Claims 11-14 depend from claim 1. Therefore, claims 11-14 should be allowable.

5. Rothschild In View Of Drexler

The Applicant next turns to the rejection of claims 15-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler. As described above, Rothschild merely describes a medical image management system where a medical imaging system obtains medical images and transmits these images to a central data management system. (column 18, lines 39-56.) Once the image data is stored at the central data management system, the images may be "pushed" to image viewing systems for users to view the images. (column 18, line 57 - column 19, line 15.)

Rothschild fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as

recited in claim 15. There is no teaching or suggestion in Rothschild for the automatic detection and restoration of erroneous medical data from a centralized remote data store to a data source. While Rothschild may disclose the communication of medical images from a central data management system to one or more viewing stations, this communication is not taught or suggested by Rothschild to occur as a result of a detected error in the medical image. That is, Rothschild does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

Drexler does not remedy the shortcomings of Rothschild, as described above. Drexler describes a method for laser writing multiple updatable miniature 2-D barcode data bases for electronic commerce. The Applicant respectfully submits that Drexler is unavailable as a prior art reference against the pending claims. Specifically, Drexler is nonanalogous art with respect to the subject matter of the pending claims.

In order to qualify as a prior art reference in a rejection under 35 U.S.C. § 103, the reference must either be (1) in the field of the applicant's endeavor or (2) reasonably pertinent to the problem with which the application is concerned:

> In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.

(MANUAL OF PATENT EXAMINING PROCEDURES § 2141.01(a), 8th ed., rev. 3 (Aug. 2005) (cited herein as "MPEP") (quoting *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992).) A prior art

reference is "reasonably pertinent to the particular problem with which the inventor was concerned" if it logically would have commended itself to the inventor's attention in considering his problem:

> A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.

(MPEP § 2141.01(a) (quoting *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).)

Drexler satisfied neither of these requirements. First, Drexler is not in the field of the Applicant's endeavor in the pending application. Drexler is in the field of reading, storing and creating two-dimensional bar codes:

> "Method For Laser Writing Multiple Updatable Miniature 2-D Barcode Data Bases For Electronic Commerce"

(Drexler, Title.)

> A method and system for recording and storing digital data on optical memory cards and labels in the form of miniature bar codes using laser recording of optical storage media to create multiple updatable, miniature 2-D bar codes, storing about 15 to more than 500 times as much digital data as the widely-adopted PDF-417, 2-D bar code.

(*Id.*, Abstract.)

> The present invention relates to a method of laser writing multiple updatable 2-D bar codes on optical memory cards and labels which are readable with a photo-detector array such as a CCD array.

(*Id.*, col. 1, lines 13-16.)

> It is the object of the present invention to devise a method and apparatus for laser recording of a single or multiple two-dimensional bar code(s) readable with CCD or other photodetector arrays and with data storage capacities ranging from about

> 15 to more than 500 times greater than that of PDF-417 bar codes. Another object is to utilize data-pixel-based two-dimensional bar codes on cards or labels for authentication, validation, authorization, or identification involving Internet and Intranet E-Commerce transactions, documents, communications, and manufactured products. Another object of the invention is to devise a method and apparatus to make CCD-read data-pixel-based two-dimensional bar codes updatable. Another object is for an optical memory card to be utilized in reading and writing microscopic data spots that can be grouped into large data pixels to form single dimension bar codes known as 1-D bar codes. The 1-D bar code product types include Code 39, Code 93, Code 128, Code 11, Code B, Coda Bar, EAN, UPC, MSI, PostNet, Royal Mail (RM 45CC), and Telepen.

(*Id.*, col. 2, lines 35-54.)

On the other hand, the pending application is in the field of application service provider based redundant archive services for medical archives and/or imaging systems. (*See* Application at Abstract.) Therefore, Drexler and the pending application clearly are not in the same "field of endeavor."

Second, Drexler cannot qualify as analogous art because it is not "reasonably pertinent" to the problem with which the pending application is concerned. Specifically, Drexler is concerned with providing an apparatus capable of laser recording single or multiple 2D bar codes. (*See, e.g.*, col. 2, lines 36-54.) On the other hand, the present application is concerned with improving the reliability of access to medical data for patient diagnosis and treatment. (*See* Application at ¶ 14.) The problems associated with laser printing of 2D bar codes and of accessing medical data are not reasonably pertinent to one another.

Therefore, Drexler does not meet either requirement for it to be considered analogous art. Consequently, Drexler is unavailable as a prior art reference in a rejection of claims under 35 U.S.C. § 103(a). (*See* MPEP § 2141.01(a).)

Alternatively, assuming for the sake of argument that Drexler could somehow be considered to constitute analogous art, Drexler still fails to remedy the shortcomings of Rothschild. Like Rothschild, Drexler also fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

The only error detection mentioned in Drexler occurs at column 6, lines 4-17:

> When an optical memory card is subject to severe environmental conditions or misuse such as scratching, high temperature, moisture, chemical or ultraviolet light exposure, particularly over extended periods of time, some of the microscopic data spots can be lost. Error detection and correction (EDAC) systems are usually used to compensate for such situations. Also, additional microscopic spot data can be recorded redundantly on the card as a backup to the primary data in the event that critical data is lost. An even more secure approach to the problem is to record some of the critical data redundantly in the form of large data pixels on the same card. Thus if the primary critical data is lost, the large data pixels can be used for recovery.

(Drexler, col. 6, lines 4-17.) That is, Drexler only describes EDAC systems that are used to compensate for the loss of data spots on an optical memory card. However, this brief passage in Drexler does not teach, suggest or even hint at several of the limitations recited in claim 15. First, Drexler does not teach or suggest the EDAC system automatically detecting an error, as recited in claim 15. Rather, Drexler just describes the EDAC system compensating for the loss of data spots. (*Id.*) No detection of errors is mentioned.

Second, Drexler does not teach or suggest detecting any error in medical data, also as recited in claim 15. Drexler only describes the loss of data spots on an optical memory card without reference to what data is included in the data spots.

Third, Drexler does not teach or suggest any device, apparatus or EDAC system instructing a centralized remote data store to transmit data to a data source in order to restore the medical data that includes the error, also as recited in claim 15. Notably, Drexler does not teach or suggest the briefly mentioned EDAC system instructing anything, much less a remote data store.

Therefore, like Rothschild, Drexler also fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Assuming for the sake of argument that one would be motivated to combine Rothschild and Drexler, the combination also fails to teach or suggest all elements of claim 15. As described above, both Rothschild and Drexler fail to teach or suggest a status monitor automatically detecting medical data error and instructing a data store to transmit data to restore the erroneous medical data. Therefore, a combination of the references also fails to teach or suggest at least this element.

The present rejection encompasses claims 15-18 and 20. The Applicant respectfully submits that Drexler is unavailable as a prior art reference under 35 U.S.C. § 103(a) because Drexler is nonanalogous art to the present application. As the Examiner admits that Rothschild

does not teach or suggest elements of claim 15 (*see* Final Office Action mailed June 13, 2006 at page 9), the Applicant respectfully submits that claim 15 should be allowable. Claims 16-18 and 20 depend from claim 15. Accordingly, claims 15-18 and 20 should be allowable.

Assuming for the sake of argument that Drexler is considered analogous art to the pending application, the Applicant respectfully submits that neither Rothschild nor Drexler, taken alone or in combination, teaches or suggests all elements of claim 15. Claims 16-18 and 20 depend from claim 15. Therefore, claims 15-18 and 20 should be allowable.

6. Rothschild In View Of Drexler, And Further In View Of Alisuag

The Applicant next turns to the rejection of claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Alisuag. As described above, the Applicant respectfully submits that Drexler is nonanalogous art to the pending application. However, even assuming for the sake of argument that Drexler is not considered nonanalogous art to the pending application, both Rothschild and Drexler, whether considered alone or in combination, fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Alisuag does not remedy these shortcomings.

As described above, Alisuag describes a computer oriented record administration system. However, Alisuag does not teach or suggest **any** error detection, much less automatic error

detection by a status monitor that also instructs a centralized remote data store to transmit data to restore the erroneous data. Therefore, each of Rothschild, Drexler and Alisuag fails to teach or suggest elements of claim 15.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Drexler and Alisuag, the combination also fails to teach or suggest elements of claim 15. Each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error. Therefore, a combination of these references also fails to teach or suggest these elements.

The present rejection encompasses claim 19. The Applicant respectfully submits that Drexler is unavailable as a prior art reference under 35 U.S.C. § 103(a) because Drexler is nonanalogous art to the present application. As the Examiner admits that Rothschild does not teach or suggest elements of claim 19 (*see* Final Office Action mailed June 13, 2006 at page 11), the Applicant respectfully submits that claim 19 should be allowable.

Assuming for the sake of argument that Drexler could be considered to be analogous art, the Applicant respectfully submits that none of Rothschild, Drexler and Alisuag, considered alone or in combination, teaches or suggests elements of claim 15. Claim 19 depends from claim 15. Therefore, claim 19 should be allowable.

7. Rothschild In View Of Drexler And Further In View Of Dethloff

The Applicant next turns to the rejection of claim 23 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Dethloff. As described above, the Applicant respectfully submits that Drexler is nonanalogous art to the pending application. However, even assuming for the sake of argument that Drexler is considered to constitute analogous art to the pending application, both Rothschild and Dethloff (whether considered alone or in combination), fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15 (as described above with respect to the rejection of claims 15-18 and 20 under 35 U.S.C. § 103(a)).

As recognized by the Examiner, Drexler also fails to teach any remote data store that restores medical data at a data source. (Final Office Action mailed June 13, 2006, page 11.) Therefore, even assuming for the sake of argument that Drexler is analogous art, none of Drexler, Rothschild and Dethloff (whether considered alone or in combination, assuming for the sake of argument that one would be motivated to combine these references) teaches or suggests elements of claim 15.

The present rejection encompasses claim 23. The Applicant respectfully submits that Drexler is unavailable as a prior art reference under 35 U.S.C. § 103(a) because Drexler is nonanalogous art to the present application. Assuming for the sake of argument that Drexler could be considered to be analogous art, the Applicant respectfully submits that none of

Rothschild, Drexler and Dethloff, considered alone or in combination, teaches or suggests elements of claim 15. Claim 23 depends from claim 15. Therefore, claim 23 should be allowable.

8. Rothschild In View Of Drexler, And Further In View Of Parvulescu

The Applicant next turns to the rejection of claim 24 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Drexler, and further in view of Parvulescu. As described above, Rothschild and Drexler (assuming for the sake of argument that Drexler is available as a prior art reference under a 35 U.S.C. § 103(a) rejection, as described above), whether considered alone or in combination, fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild and Dethloff. Parvulescu merely describes a medical image processing system that provides for a user to capture a medical image and store the image data locally, on a portable media (such as a CD), or on a network server (communicated to the server via a network connection). (Parvulescu, col. 3, lines 18-39.) Parvulescu merely provides for the obtaining and storage of image data--there is no detection of errors in the image data nor is there any restoration of the erroneous image data once it is detected taught or suggested by

Parvulescu. Therefore, Parvulescu does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Drexler and Parvulescu, the combination also fails to teach or describe elements of claim 15. As described above, each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error. Therefore, these references all fail to teach or describe elements of claim 15.

The present rejection encompasses claim 24. The Applicant respectfully submits that none of Rothschild, Drexler and Parvulescu, considered alone or in combination and assuming for the sake of argument that Drexler is available as a prior art reference under 35 U.S.C. § 103(a), teaches or suggests elements of claim 15. Claim 24 depends from claim 15. Therefore, claim 24 should be allowable.

9. Rothschild In View Of Sameshima And Further In View Of Parvulescu

The Applicant next turns to the rejection of claims 25-29, 31-34 and 53-54 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu.

A. Claim 53

Claim 53 depends from claim 1. As described above with regard to the rejection of claim 1, neither Rothschild nor Sameshima teaches or suggests at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild with regards to claim 1, as described above. Specifically, while Parvulescu generally describes a system for obtaining and archiving medical images, Parvulescu is entirely devoid of any disclosure of a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive. (Parvulescu, col. 4, lines 30-36.) There is no teaching or suggestion of any device or routine that either controls data transfer or triggers the archiving of medical data when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of at least claim 1.

In addition, a combination of Rothschild, Sameshima and Parvulescu also does not teach or suggest elements of at least claim 1. As explained above, each of these references lacks any

teaching or suggestion of a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. As claim 53 depends from claim 1, Rothschild, Sameshima and Parvulescu, whether considered alone or in combination, fail to teach or suggest elements of claim 53.

B. Claim 54

Claim 54 depends from claim 15. As described above with regard to the rejection of claim 24 (which also depends from claim 15), neither Rothschild nor Parvulescu, considered alone or in combination, teaches or suggests elements of claim 15. Each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error.

Sameshima does not remedy these shortcomings. Specifically, there is no teaching or suggestion of any automatic error detection in medical data and/or any instruction sent to a remote data store to restore erroneous medical data in Sameshima. Notably, there is no mention of any data error in Sameshima at all, whether for purposes of error detection or error data restoration. Therefore, Sameshima clearly does not teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized

remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

Therefore, these references all fail to teach or describe elements of claim 15. As claim 54 depends from claim 15, Rothschild, Sameshima and Parvulescu, whether considered alone or in combination, fail to teach or suggest elements of claim 54.

C. **Claim 25**

With regard to claim 25, none of Rothschild, Sameshima and Parvulescu, whether considered alone or in combination (assuming for the sake of argument that one would be motivated to combine the references), teach or suggest elements of claim 25. Claim 25 recites detecting the obtaining of medical data at a data source and transferring the medical data from the source to a centralized remote data store based on a trigger. The trigger of claim 25 is produced by a status monitor after the data is obtained. As described above, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

In addition, Sameshima does not include any teaching or suggestion of transferring medical data from its source to a remote data store. Sameshima only describes the communication of data between processing devices, and not to any remote data store. (*See* Sameshima, col. 4, lines 37-40 ("The system has processing devices 111 to 113 which mutually communicate (transmit/receive) data to one another through a transmission medium 101, and

terminals 121 to 123 each having a display, a keyboard, etc.").) Therefore, Sameshima also fails to teach or suggest elements of claim 25.

Assuming for the sake of argument that one would be motivated to combine Sameshima, Parvulescu and Rothschild, the combination also fails to teach or suggest elements of claim 25. As described above, each of these references fails to teach or describe detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Therefore, the Applicant respectfully submits that none of Sameshima, Parvulescu and Rothschild, considered alone or in combination, teaches or suggests elements of at least claim 25.

The present rejection encompasses claims 25-29, 31-34 and 53-54. The Applicant respectfully submits that none of Rothschild, Sameshima and Parvulescu, considered alone or in combination, teaches or suggests elements of claims 1, 15 and 25. Claims 26-29, 31-34 and 53-54 depend from claims 1, 15 and 25. Therefore, claims 25-29, 31-34 and 53-54 should be allowable.

10. Rothschild In View Of Sameshima And Parvulescu, And Further In View Of Alisuag

The Applicant next turns to the rejection of claim 30 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu, and further in view of Alisuag. As

described above, none of Sameshima, Parvulescu and Rothschild, alone or in combination, teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Alisuag does not remedy these shortcomings of Rothschild and Parvulescu. Alisuag does not teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Alisuag merely describes the obtaining of a passkey by a first user and the communication of the passkey to a second user so that both users can access data stored on a portable memory device. (Alisuag, ¶¶ 11, 12, 14.) Alisuag does not teach or suggest any detection of when data is obtained at any source, or transferring data based on a trigger produced by a status monitor. Therefore, Alisuag also does not teach or suggest elements of claim 25.

Moreover, assuming for the sake of argument that one would be motivated to combine these references, the combination also fails to teach or suggest elements of claim 25. As described above, each of these references fails to teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained. Therefore, each of these references fails to teach or suggest elements of claim 25.

The present rejection encompasses claim 30. The Applicant respectfully submits that none of Rothschild, Sameshima, Parvulescu and Alisuag, considered alone or in combination, teaches or suggests elements of claim 25. Claim 30 depends from claim 25. Therefore, claim 30 should be allowable.

11. Rothschild In View Of Sameshima And Parvulescu, And Further In View Of Dethloff

The Applicant next turns to the rejection of claims 35 and 36 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Sameshima and Parvulescu, and further in view of Dethloff.

As described above, none of Parvulescu, Rothschild and Sameshima, alone or in combination, teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Dethloff does not remedy these shortcomings.

Dethloff does not teach or suggest the detection of when any data is obtained by a source and transferring data from a source to a remote store based on a trigger produced after data is obtained. Rather, Dethloff is limited to describing a data medium (such as a chip card) that stores data and a terminal that stores and displays data. Data can be transferred from the data medium to the terminal and vice-versa, but no detection of when data is obtained by a source is taught or suggested. Therefore, Dethloff also fails to teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a

centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Assuming for the sake of argument that one would be motivated to combine these references, the combination also fails to teach or suggest elements of claim 25. As described above, none of these references teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained. Therefore, a combination of these references also fails to teach or suggest elements of claim 25.

The present rejection encompasses claims 35 and 36. The Applicant respectfully submits that none of Rothschild, Sameshima, Parvulescu and Dethloff, considered alone or in combination, teaches or suggests elements of claim 25. Claims 35 and 36 depend from claim 25. Therefore, claims 35 and 36 should be allowable.

The Applicant respectfully submits that the claims of the present application should be allowable over the prior art.

CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 07-0845.

Respectfully submitted,

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